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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,313

09/27/2006

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EXAMINER

LEE, MICHAEL S

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,313	Applicant(s) KIMURA ET AL.	
	Examiner MICHAEL LEE	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is a FINAL office action on the merits. Claims 1-14, as filed are currently pending and have been considered below. All previous objections have been withdrawn.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 & 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Fuchs (US 5,913,435).

Regarding claim 1, Fuchs discloses a closure with snap-type hinge cap comprising:

a hinge portion (13 and 25) that connects a fixed member (11) and a movable member (12) to each other and allows the movable member (12) to swing relative to the fixed member (11, Fig 2 and 5 show different orientations states of swinging); and

a pair of connection portions [adapted to respectively connect the hinge portion to the fixed member and the movable member]*, the pair of connection portions including a first connection portion (via end portion of 25 adjacent to 26) connecting the hinge portion to the fixed member and a second connection

portion (via end portion of 25 adjacent to 27) connecting the hinge portion to the movable member,

wherein the hinge portion (13 and 25) comprises a shaft (Fig. 1),

the fixed member (11) has a recessed portion (26) on a surface thereof, and the first connection portion (end portion of 25 adjacent to 26) extends adjacent to the recessed portion (26, Fig. 1), and

the first connection portion has a connection surface, the connection surface being continuous with at least one surface of the hinge portion extending in an axial direction thereof (Fig. 1).

Examiner's note*: the above (and below) statements in brackets are examples of intended use failing to limit the structure of the claimed invention. The prior art must only be capable of performing said functional recitations to be applicable and in the instant case, the prior art of Fuchs is indeed capable. Note that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Regarding claim 5, Fuchs discloses a hinge structure member comprising a hinge structure, the hinge structure comprising:

a hinge portion (13 and 25) that connects a fixed member (11) and a movable member (12) to each other and allows the movable member (12) to

Art Unit: 3677

swing relative to the fixed member (11, Fig 2 and 5 show different orientation states of swinging); and

a pair of connection portions [adapted to respectively connect the hinge portion to the fixed member and the movable member]*, the pair of connection portions including a first connection portion (via end portion of 25 adjacent to 26) connecting the hinge portion to the fixed member and a second connection portion (via end portion of 25 adjacent to 27) connecting the hinge portion to the movable member,

wherein the hinge portion (13 and 25) comprises a shaft (13, Fig. 1),

the fixed member (11) has a recessed portion (26) on a surface thereof, and the first connection portion (end portion of 25 adjacent to 26) extends adjacent to the recessed portion (26, Fig. 1), and

the first connection portion has a connection surface, the connection surface being continuous with at least one surface of the hinge portion extending in an axial direction thereof (Fig. 1).

Regarding claim 10, Fuchs discloses an integrally-molded hinge structure comprising:

a hinge portion (13 and 25) that connects a fixed member (11) and a movable member (12) to each other and allows the movable member (12) to swing relative to the fixed member (11, Fig 2 and 5 show different orientations states of swinging); and

Art Unit: 3677

wherein the fixed member (11) comprises a recess (26) into a fixed-member surface thereof;

wherein the hinge portion (13 and 25) comprises a shaft (13; Fig. 1) extending from the fixed member, the shaft having an upper surface and a lower surface parallel to the upper surface, and right and left surfaces (Fig. 1),

wherein the right and left surfaces of the shaft are continuous with a side wall of the recess (26, Fig. 1); and

wherein the upper surface of the shaft (13) is coplanar with the fixed-member surface (Fig. 3).

Regarding claim 11, Fuchs further discloses wherein the upper surface of the shaft (13) is continuous with the fixed-member surface (Fig. 3).

Regarding claim 12, Fuchs further discloses wherein the side wall comprises a floor of the recess (26, Fig. 1), and wherein the lower surface of the shaft (13) coincides with the floor of the recess where the hinge portion overlaps the fixed member (Fig. 1 & 4).

Regarding claims 13 and 14, Fuchs further discloses wherein a lower surface of the shaft coincides with the floor of the recess where the hinge portion overlaps the fixed member, whereby a surface of the shaft is flush with the at least one surface of the hinge portion extending in an axial direction thereof (Fig. 1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 3677

2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. Claims 2-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs as applied to claims 1 and 5 above, and further in view of Applicant's Admitted Prior Art (hereafter referred to as AAPA).

Regarding claims 2 and 6, Fuchs discloses all the structural elements as seen above in claims 1 and 5 above and discloses the first connection portion (via end portion of 25 adjacent to 26) and the hinge portion (13) are integrally formed (Column 1, lines 9-11).

However, Fuchs fails to explicitly teach the parts are formed by molding elastically deformable synthetic resin.

AAPA teaches the connection portion and hinge portions are integrally molded with a deformable synthetic resin (Page 2, line 18-19).

From this teaching of AAPA, it would have been obvious to one skilled in the art at the time of the invention to modify the hinge cap of Fuchs to create the piece with an elastically deformable synthetic resin for durability and flexibility.

Regarding claims 3 and 7, Fuchs discloses the pair of connection portions (via end portions of 25 adjacent to 26 and 27), hinge portion (13), the fixed member (11) and the movable member (12) are integrally formed (Column 1, lines 9-11).

Regarding claims 4 and 8, Fuchs discloses all the structural elements as disclosed above in claim 1 and 5.

AAPA further teaches wherein the hinge portion and the first connection portion (via end portion of 25 adjacent to 26) have their side surfaces smoothly continued to each other (Page 2, lines 19-22).

From this teaching of AAPA, it would have been obvious to one skilled in the art at the time of the invention to further modify the hinge cap of Fuchs to have the side surfaces smoothly continued to each other to reduce stress concentrations.

Regarding claim 9, AAPA further teaches the fixed member is a support frame (30), and the movable member is an operation button (10).

From this teaching of AAPA, it would have been obvious to one skilled in the art at the time of the invention to further modify the hinge cap of Fuchs to have the

Art Unit: 3677

members be a support frame and operation button as an obvious application of the hinge structure.

Response to Arguments

7. Applicant's arguments filed 20 October 2009 have been fully considered but they are not persuasive.

In response to applicant's comments regarding the connection surface being continuous with a surface of the hinge portion, the elements are connected and can be considered continuous with each other.

Regarding applicant's discussion of new dependent claims 13 and 14, the claimed language makes no reference neither to any sort of stress concentration nor to structural geometry as related to stress. Therefore, applicant's arguments are more limiting in scope than what is currently provided in the claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3677

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LEE whose telephone number is (571)270-5735. The examiner can normally be reached on M-F 7:30-5:00 Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. L./
Examiner, Art Unit 3677

/Victor Batson/
Supervisory Patent Examiner, Art Unit 3677